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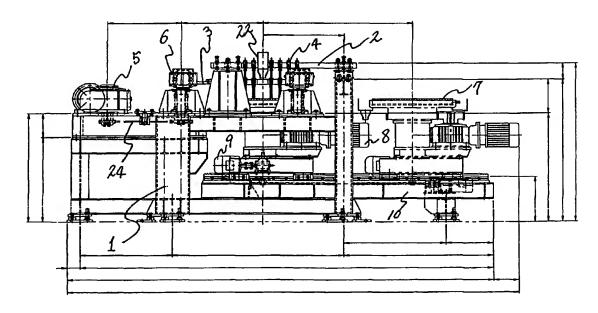
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NANO GRINDING MILL (DRIED TYPE)



(57) Abstract: Disclosed is a nano grinding mill including a lower turntable with a disc plate mounted on the lower portion thereof, and upper and intermediate plates disposed above the lower turntable, each of the upper and intermediate plates having several tens to several thousands of pressure grinding rods mounted thereon, the upper plate being adapted to fix the pressure grinding rods and the intermediate plate being adapted to eccentrically rotate the pressure grinding rods.

INTERNATIONAL SEARCH REPORT

iternational application No. PCT/KR03/01608

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 B02C 19/08, B02C 2/10, B02C 13/00, B02C 15/00, B02C 25/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: B02C 19/08, B02C 2/10, B02C 13/00, B02C 15/00, B02C 25/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korea Patents and Applications for Invention since 1975.

Korea Utility Models Applications for Utility Models since 1975.

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used) NPS, PAJ.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR96-0013464 A (JAPAN KOASDENGI. LTD.) 22.MAY.1996. see the whole document.	1-3
A '	KR2001-0077393 A (KANG DEA IL) 17.AUG.2001. see the whole document.	1-3
A	KR95-0016852 U (JUNG IN GUAN) 20JUL.1995. see the whole document.	1-3
A	KR84-0006917 A (COMBUSTION ENGGINEERING. INC.) 04.DEC.1984. see the whole document.	1-3
A	KR88-0700962 A (COMBUSTION ENGGINEERING. INC.) 13.APR.1988. see the whole document.	1-3
A	KR94-0005318 A (KOBAE SEIKOSO. LTD.) 21.MAR.1994. see the whole document.	1-3

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X | See patent family annex.

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- "&" document member of the same patent family

Date of the actual completion of the international search

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR96-0013464 A	22.05.96	JP6-272819 JP6-329360 JP7-160115	12-10-94 02-12-94 02-06-95
KR2001-0077393 A	17.08.01	NONE	
KR95-0016852 U	20.07.95	NONE	
KR84-0006917 A	04.05.84	US0447916	04-12-84
KR88-0700962 A	13.04.88	US0828490	12-02-86
KR94-0005318 A	21.03.94	JP4-201312 JP5-043564 JP5-119464	28-07-92 04-03-93 21-05-93